

That which is claimed is:

1. An information management and synchronous communications system for generating menus comprising:

- a. a central processing unit,
- b. a data storage device connected to said central processing unit,
- c. an operating system including a graphical user interface,
- d. a first menu stored on said data storage device,
- e. application software for generating a second menu from said first menu,

wherein the application software facilitates the generation of the second menu by allowing selection of items from the first menu, addition of items to the second menu and assignment of parameters to items in the second menu using the graphical user interface of said operating system and wherein data comprising the second menu is synchronized between the data storage device connected to the central processing unit and at least one other computing device.

2. An information management and synchronous communications system in accordance with claim 1, wherein the second menu is a restaurant menu.

3. An information management and synchronous communications system in accordance with claim 1, wherein the second menu is capable of being displayed on the display screen of a wireless computing device.

4. An information management and synchronous communications system in accordance with claim 3, wherein selections from the second menu are capable of being transmitted to a receiving computer by wireless link.

1 5. An information management and synchronous communications system in
2 accordance with claim 1, wherein the second menu is capable of being displayed on display
3 screens of computers in a network.

4 6. An information management and synchronous communications system in
5 accordance with claim 5, wherein the computer network is the internet.

6 7. An information management and synchronous communications system in
7 accordance with claim 3, wherein selections from the second menu are capable of being
8 transmitted to a receiving computer via the internet.

9 8. An information management and synchronous communications system in
10 accordance with claim 1, wherein the second menu is created in conformity with hypertext
11 markup language or extensible markup language.

12 9. An information management and synchronous communications system in
13 accordance with claim 1, wherein the second menu overwrites the first menu.

14 10. The information management and synchronous communications system of
15 claim 1, wherein the first menu and the second menu are both capable of being displayed in the
16 same window on the display screen.

17 11. The information management and synchronous communications system of
18 claim 1, wherein the items comprising the second menu are a subset of the items comprising the
19 first menu.

20 12. An information management and synchronous communications system for
21 generating menus comprising:

- 22 a. a microprocessor,
- 23 b. a display device,
- 24 c. a data and instruction input device,

1 16. The information management and synchronous communications system of
2 claim 15, further comprising means for converting the modified menu to hypertext markup
3 language or extensible markup language.

4 17. The information management and synchronous communications system of
5 claim 15, wherein the items comprising the modified menu are a subset of the items comprising
6 the master menu.

7 18. An information management and synchronous communications system in
8 accordance with claim 12, wherein said operating system includes a graphical user interface and
9 wherein said microprocessor, operating system and application software are operative to generate
10 the modified menu by facilitating selection of items from said master menu using the graphical
11 user interface of said operating system.

12 19. An information management and synchronous communications system in
13 accordance with claim 12, wherein said master menu is organized in a hierarchical tree structure
14 having branches comprising menu items and wherein the modified menu is at least partially
15 generated by selecting items from the branches of the tree structure.

16
17
18 20. In a computer system having an input device, a storage device, a video
19 display, an operating system including a graphical user interface and application software, an
20 information management and synchronous communications method comprising the steps of:

- 21 a. outputting at least one window on the video display;
- 22 b. outputting a first menu in a window on the video
- 23 display;
- 24 c. displaying a cursor on the video display;

1 d. selecting items from the first menu with the input
2 device or the graphical user interface;
3 e. inserting the items selected from the first menu into
4 a second menu, the second menu being output in a
5 window;
6 f. optionally adding additional items not included in
7 the first menu to the second menu using the input
8 device or the graphical user interface;
9 g. storing the second menu on the storage device; and
10 synchronizing the data comprising the second menu between the storage device
11 and at least one other data storage medium, wherein the other data storage medium is connected
12 to or is part of a different computing device.

13 21. The method of claim 20, further comprising the step of transferring data or
14 instructions representative of the second menu to a remote digital device or Web page.

15 22. The method of claim 21, wherein said data or instructions representative
16 of the second menu are transferred by a wireless link.

17 23. The method of claim 20, wherein the selected items and optional
18 additional items are inserted into a second menu which is displayed in the same window as the
19 first menu.

20 24. The method of claim 21, comprising the further steps of selecting at least
21 one item from the second menu and transmitting at least one item selected to another computer.

22 25. The method of claim 24, wherein at least one item selected from the
23 second menu is transmitted to another computer by wireless link or the internet.

24 26. The method of claim 21, wherein the second menu is displayed on the
25 remote digital device or Web page in page format.

1 27. The method of claim 20, wherein the second menu overwrites the first
2 menu.

3 28. The method of claim 20, wherein the items comprising the second menu
4 are a subset of the items comprising the first menu.

5
6 29. An information management and synchronous communications system for
7 use with wireless handheld computing devices and hospitality computing systems comprising:

- 8
9 a. a central database containing hospitality
10 applications and data,
11
12 b. at least one wireless handheld computing device on
13 which hospitality applications and data are stored or
14 displayed,
15 c. an application program interface, and
16 d. a communications control module;

17 wherein applications or data are synchronized wirelessly between the central database and at
18 least one wireless handheld computing device and wherein the applications program interface
19 and communications control module establish a seamless link between the data in the central
20 database and the data on the wireless handheld computing device.

21 30. The information management and synchronous communications system of
22 claim 29 wherein the communications control module and the application program interface
23 enable the automatic generation of and updating of operator menus or screens on the handheld
24 computer based on data from the central hospitality database.

1 31. The information management and synchronous communications system of
2 claim 30 wherein messaging formats are used which are in conformity with HTML or XML
3 messaging formats.

4 32. An information management and synchronous communications system for use
5 with wireless handheld computing devices and hospitality applications comprising:
6

- 7 a. a central database containing hospitality
- 8 applications and data,
- 9
- 10 b. at least one wireless computing device,
- 11 c. at least one wireless paging or beeper device,
- 12 d. an applications program interface, and
- 13 e. a communications control module;

14 wherein hospitality applications or data are synchronized between the central database, at least
15 one wireless computing device and at least one wireless paging or beeper device and wherein
16 messaging to the wireless paging or beeper device is enabled directly from the operator interface
17 of the wireless computing device.
18

19 33. An information management and synchronous communications system
20 comprising:

- 21 a. a central database containing applications and data,
- 22 b. a first computing device associated with the central
- 23 database,
- 24 c. a second computing device associated with a second
- 25 storage medium containing applications and data,
- 26 d. an applications program interface, and
- 27 e. a communications control module;

1 wherein applications or data are synchronized between the central database and the second
2 storage medium and wherein the applications program interface and communications control
3 module establish a seamless link between the data in the central database and the data on the
4 second storage medium.

5 34. The information management and synchronous communications system of
6 claim 33 wherein the communications control module and the applications program interface
7 enable the automatic generation of and updating of operator menus or screens on the second
8 computing device based on data from the central database.

9 35. The information management and synchronous communications system of
10 claim 1 wherein the second menu is generated by manually selecting items from the first menu,
11 adding items to the second menu or assigning parameters to items in the second menu.

12 36. The information management and synchronous communications system of
13 claim 1 wherein the data is synchronized by digital transmission between the data storage device
14 connected to the central processing unit and at least one other computing device.

15 37. The information management and synchronous communications system of
16 claim 12 wherein the modified menu is generated by manually selecting items from the master
17 menu.

18 38. The information management and synchronous communications system of
19 claim 12 wherein the data is synchronized by digital transmission between the data storage
20 device and at least one other computing device.

21 39. The computer system of claim 20 wherein the data is synchronized by digital
22 transmission between the storage device and at least one other data storage medium.

1 40. The information management and synchronous communications system of
2 claim 29 wherein the applications or data are synchronized by digital data transmission between
3 the central database and at least one wireless handheld computing device.

4 41. The information management and synchronous communications system of
5 claim 32 wherein the applications or data are synchronized by digital data transmission between
6 the central database, at least one wireless computing device and at least one wireless paging or
7 beeper device.

8 42. The information management and synchronous communication system of
9 claim 29, 32, or 33 wherein the synchronized data relates to orders.

10 43. The information management and synchronous communication system of
11 claim 29, 32, or 33 wherein the synchronized data relates to waitlists

12 44. The information management and synchronous communication system of
13 claim 29, 32, or 33 wherein the synchronized data relates to reservations.

14 45. The information management and synchronous communication system of
15 claim 29 or 32 wherein the synchronized data is sent from at least one of the wireless computing
16 devices to a receiver at a valet parking base station.

17 46. The information management and synchronous communication system of
18 claim 29 or 32 wherein the synchronized data is sent from at least one of the wireless computing
19 devices to a wireless paging device.

20 47. The information management and synchronous communication system of
21 claim 33 wherein the synchronized data is sent from said second computing device to a receiver
22 at a valet parking base station.

1 48. The information management and synchronous communication system of
2 claim 33 wherein the synchronized data is sent from said second computing device to a wireless
3 paging device.

4 49. The information management and synchronous communication system of
5 claim 1 wherein said application software acts to facilitate generation of the second menu such
6 that the second menu is appropriate for a specified time of day.

7 50. The information management and synchronous communication system of
8 claim 1 wherein said application software further facilitates the generation of multiple menus,
9 each of said multiple menus being appropriate for a particular time of day.

10 51. The information management and synchronous communication system of
11 claim 1 wherein the facilitation of second menu generation by said application software takes
12 into account specified parameters, such that the second menu so generated includes items that
13 satisfy the specified parameters.

14 52. The information management and synchronous communication system of
15 claim 51 wherein the second menu so generated further includes manually selected items.

16 53. The information management and synchronous communication system of
17 claim 1 wherein the second menu is applicable to table-based customer ordering.

18 54. The information management and synchronous communication system of
19 claim 1 wherein the second menu is applicable to drive-through customer ordering.

20 55. The information management and synchronous communication system of
21 claim 1 wherein the second menu is applicable to customer ordering via internet .

22 56. The information management and synchronous communication system of
23 claim 1 wherein the second menu is applicable to customer ordering via telephone.

1 57. The information management and synchronous communication system of
2 claim 1 wherein the second menu is applicable to customer ordering via wireless device.

3 58. The information management and synchronous communication system of
4 claim 51 wherein said specified parameters involve recipe content.

5 59. The information management and synchronous communication system of
6 claim 12 wherein said microprocessor, operating system, and application software are further
7 operative to create said modified menu such that the modified menu is appropriate for a specified
8 time of day.

9 60. The information management and synchronous communication system of
10 claim 12 wherein said microprocessor, operating system, and application software are further
11 operative to create multiple menus, each of said multiple menus being appropriate for a
12 particular time of day.

13 61. The information management and synchronous communication system of
14 claim 12 wherein the creation of said modified menu by said microprocessor, operating system,
15 and application software takes into account specified parameters, such that the modified menu so
16 created includes items that satisfy the specified parameters.

17 62. The information management and synchronous communication system of
18 claim 61 wherein the modified menu so generated further includes manually selected items.

19 63. The information management and synchronous communication system of
20 claim 12 wherein the modified menu is applicable to table-based customer ordering.

21 64. The information management and synchronous communication system of
22 claim 12 wherein the modified menu is applicable to drive-through customer ordering.

65. The information management and synchronous communication system of claim 12 wherein the modified menu is applicable to customer ordering via internet.

66. The information management and synchronous communication system of claim 12 wherein the modified menu is applicable to customer ordering via telephone.

67. The information management and synchronous communication system of claim 12 wherein the modified menu is applicable to customer ordering via wireless device.

68. The information management and synchronous communication system of claim 61 wherein said specified parameters involve recipe content.

69. An information management and synchronous communications system for generating and transmitting menus comprising:

- a. a central processing unit,
- b. a data storage device connected to said central processing unit,
- c. an operating system including a graphical user interface,
- d. a first menu consisting of menu categories, said menu categories consisting of menu items, said first menu stored on said data storage device and displayable in a window of said graphical user interface in a hierarchical tree format,
- e. a modifier menu stored on said data storage device and displayable in a window of said graphical user interface,
- f. a sub-modifier menu stored on said data storage device and displayable in a window of said graphical user interface, and
- g. application software for generating a second menu from said first menu and transmitting said second menu to a wireless handheld computing device or Web page,

1 wherein the application software facilitates the generation of the second menu by
2 allowing selection of categories and items from the first menu, addition of menu categories to the
3 second menu, addition of menu items to the second menu and assignment of parameters to items
4 in the second menu using the graphical user interface of said operating system, said parameters
5 being selected from the modifier and sub-modifier menus, wherein said second menu is
6 applicable to a predetermined type of ordering.

7 70. The system of claim 69 wherein the type of ordering is table-based customer
8 ordering.

9 71. The system of claim 69 wherein the type of ordering is drive-through
10 customer ordering.

11 72. The system of claim 69 wherein the type of ordering is customer ordering via
12 internet.

13 73. The system of claim 69 wherein the type of ordering is customer ordering via
14 telephone.

15 74. The system of claim 69 wherein the type of ordering is customer ordering via
16 wireless device.

17 75. An information management and synchronous communications system for
18 generating and transmitting menus comprising:

- 19 a. a central processing unit,
20 b. a data storage device connected to said central processing unit,
21 c. an operating system including a graphical user interface,

1 d. a first menu consisting of menu categories, said menu categories
2 consisting of menu items, said first menu stored on said data storage device and displayable in a
3 window of said graphical user interface in a hierarchical tree format,
4 e. a modifier menu stored on said data storage device and displayable
5 in a window of said graphical user interface,
6 f. a sub-modifier menu stored on said data storage device and
7 displayable in a window of said graphical user interface, and
8 g. application software for generating a second menu from said first
9 menu and transmitting said second menu to a wireless handheld computing device or Web page,
10 wherein the application software facilitates the generation of the second menu by
11 allowing selection of categories and items from the first menu, addition of menu categories to the
12 second menu, addition of menu items to the second menu and assignment of parameters to items
13 in the second menu using the graphical user interface of said operating system, said parameters
14 being selected from the modifier and sub-modifier menus, wherein said application software acts
15 to facilitate generation of the second menu such that the second menu is appropriate for a
16 specified time of day.

17 76. An information management and synchronous communications system for
18 generating and transmitting menus comprising:

- 19 a. a central processing unit,
20 b. a data storage device connected to said central processing unit,
21 c. an operating system including a graphical user interface,

1 d. a first menu consisting of menu categories, said menu categories
2 consisting of menu items, said first menu stored on said data storage device and displayable in a
3 window of said graphical user interface in a hierarchical tree format,
4 e. a modifier menu stored on said data storage device and displayable
5 in a window of said graphical user interface,
6 f. a sub-modifier menu stored on said data storage device and
7 displayable in a window of said graphical user interface, and
8 g. application software for generating a second menu from said first
9 menu and transmitting said second menu to a wireless handheld computing device or Web page,
10 wherein the application software facilitates the generation of the second menu by
11 allowing selection of categories and items from the first menu, addition of menu categories to the
12 second menu, addition of menu items to the second menu and assignment of parameters to items
13 in the second menu using the graphical user interface of said operating system, said parameters
14 being selected from the modifier and sub-modifier menus, wherein said application software
15 further facilitates the generation of multiple menus, each of said multiple menus being
16 appropriate for a particular time of day.

17 77. An information management and synchronous communications system for
18 generating and transmitting menus comprising:

- 19 a. a central processing unit,
20 b. a data storage device connected to said central processing unit,
21 c. an operating system including a graphical user interface,

1 d. a first menu consisting of menu categories, said menu categories
2 consisting of menu items, said first menu stored on said data storage device and displayable in a
3 window of said graphical user interface in a hierarchical tree format,
4 e. a modifier menu stored on said data storage device and displayable
5 in a window of said graphical user interface,
6 f. a sub-modifier menu stored on said data storage device and
7 displayable in a window of said graphical user interface, and
8 g. application software for generating a second menu from said first
9 menu and transmitting said second menu to a wireless handheld computing device or Web page,
10 wherein the application software facilitates the generation of the second menu by
11 allowing selection of categories and items from the first menu, addition of menu categories to the
12 second menu, addition of menu items to the second menu and assignment of parameters to items
13 in the second menu using the graphical user interface of said operating system, said parameters
14 being selected from the modifier and sub-modifier menus, wherein the facilitation of second
15 menu generation by said application software takes into account specified parameters, such that
16 the second menu so generated includes items that satisfy the specified parameters.

17 78. The information management and synchronous communication system of
18 claim 77 wherein said specified parameters involve recipe content.

19
20 79. An information management and synchronous communications system for
21 use with wireless handheld computing devices and the internet comprising:

22 a. a central database containing hospitality applications and data,

- 1 **b.** at least one wireless handheld computing device on which hospitality
- 2 applications and data are stored,
- 3 **c.** at least one Web server on which hospitality applications and data are
- 4 stored,
- 5 **d.** at least one Web page on which hospitality applications and data are
- 6 stored,
- 7 **e.** an application program interface, and
- 8 **f.** a communications control module,

9 wherein applications and data are synchronized between the central data base, at
10 least one wireless handheld computing device, at least one Web server and at least one Web
11 page; wherein the application program interface enables integration of outside applications with
12 the hospitality applications and wherein the communications control module is an interface
13 between the hospitality applications and any other communications protocol, wherein the
14 synchronized data relates to orders.

15 80. An information management and synchronous communications system for
16 use with wireless handheld computing devices and the internet comprising:

- 17 **a.** a central database containing hospitality applications and data,
- 18 **b.** at least one wireless handheld computing device on which
- 19 hospitality applications and data are stored,
- 20 **c.** at least one Web server on which hospitality applications and data
- 21 are stored,
- 22 **d.** at least one Web page on which hospitality applications and data
- 23 are stored,

1 e. an application program interface, and

2 f. a communications control module,

3 wherein applications and data are synchronized between the central data base, at
4 least one wireless handheld computing device, at least one Web server and at least one Web
5 page; wherein the application program interface enables integration of outside applications with
6 the hospitality applications and wherein the communications control module is an interface
7 between the hospitality applications and any other communications protocol, wherein the
8 synchronized data relates to waitlists.

9 81. An information management and synchronous communications system for
10 use with wireless handheld computing devices and the internet comprising:

11 a. a central database containing hospitality applications and data,

12 b. at least one wireless handheld computing device on which
13 hospitality applications and data are stored,

14 c. at least one Web server on which hospitality applications and data
15 are stored,

16 d. at least one Web page on which hospitality applications and data
17 are stored,

18 e. an application program interface, and

19 f. a communications control module,

20 wherein applications and data are synchronized between the central data base, at
21 least one wireless handheld computing device, at least one Web server and at least one Web
22 page; wherein the application program interface enables integration of outside applications with
23 the hospitality applications and wherein the communications control module is an interface

1 between the hospitality applications and any other communications protocol, wherein the
2 synchronized data relates to reservations.

3 82. The information management and synchronous communication system of
4 claim 79, 80, or 81 wherein the data is sent to a receiver at a valet parking base station.

5 83. The information management and synchronous communication system of
6 claim 79, 80, or 81 wherein the data is sent to a wireless paging device.

7 84. The method of claim 20 wherein said application software acts to facilitate
8 generation of the second menu such that the second menu is appropriate for a specified time of
9 day.

10 85. The method of claim 20 wherein said application software facilitates the
11 generation of multiple menus, each of said multiple menus being appropriate for a particular
12 time of day.

13 86. The method of claim 20 wherein said application software acts to facilitate
14 generation of the second menu, the taking into account specified parameters such that the second
15 menu so generated includes items that satisfy the specified parameters.

16 87. The method of claim 86 wherein the second menu so generated further
17 includes manually selected items.

18 88. The method of claim 20 wherein the second menu is applicable to table-based
19 customer ordering.

20 89. The method of claim 20 wherein the second menu is applicable to drive-
21 through customer ordering.

22 90. The method of claim 20 wherein the second menu is applicable to customer
23 ordering via internet .

1 91. The method of claim 20 wherein the second menu is applicable to customer
2 ordering via telephone .

3 92. The method of claim 20 wherein the second menu is applicable to customer
4 ordering via wireless device.